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Environmental Remediation of Dioxin Contamination at Danang Airport

USAID contractors excavate dioxin-contaminated soil and sediment and place it into the containment structure for thermal treatment at Danang Airport. *(Photos: USAID and TetraTech)*

At the request of the Government of Vietnam (GVN), the U.S. Government agreed to complete the environmental remediation, or cleanup, of the Danang Airport due to high dioxin concentrations in soil and sediment remaining from the U.S.-Vietnam War. Approved by the Vietnam Prime Minister in 2011, USAID and the Vietnamese Ministry of National Defense (MND) are jointly implementing the Danang Airport Remediation Project, which aims to clean up the dioxin contamination and consequently eliminate risk of dioxin exposure to the surrounding community while developing Vietnamese capacity for environmental assessment and remediation activities.

PROJECT HISTORY & ENVIRONMENTAL REMEDIATION PROCESS

In 2010, USAID carried out an Environmental Assessment of the Danang Airport that estimated the volume of dioxin contaminated soil and sediment at the airport and evaluated multiple containment and remediation strategies. Thermal treatment was determined to be the most effective and scientifically proven technology for destroying dioxin, as well as having the lowest potential impact on human health and the environment given the specific conditions of the Danang Airport.

The Project will clean approximately 80,000 cubic meters of contaminated material to GVN dioxin cleanup standards for soil and sediment. The thermal treatment strategy involves three major steps: 1) building an enclosed, above ground containment structure; 2) excavating and placing the dioxin-contaminated soils and sediment into the structure; and 3) heating the contaminated soil and sediment to a high temperature (minimum of 335ºC) to destroy the dioxin. Following treatment, the soil and sediment will be tested to ensure it meets the approved GVN treatment goal, removed from the containment structure and used as fill material on site. Due to the large volume of contamination, this process will occur in two phases.

ENVIRONMENTAL MONITORING & HEALTH AND SAFETY

All remediation activities occur entirely within the military portion boundaries of the Danang Airport. Measures are in place to ensure that contaminated soil, sediment, dust and water do not leave the Project area. Safe work practices for hazardous waste sites are being followed for all remediation activities, including worker monitoring and health & safety training. Stakeholder engagement and community outreach activities are also an integral part of the Project.

GOVERNMENT COUNTERPARTS AND USAID CONTRACTORS

MND – Air Defense Air Force Command: Project Owner; responsible for ensuring project meets all applicable Vietnamese environmental laws and regulations.
USAID: U.S. Government Implementing Agency; responsible for procuring contractors to perform the work and project oversight.
USAID Contractors: CDM Smith (Construction Management Contractor), Tetra Tech, Inc. (Excavation and Construction Contractor), TerraTherm, Inc. (Thermal Desorption Contractor).
Stakeholders/Partners: Danang Peoples' Committee; Office 33, Ministry of Natural Resources and Environment; U.S. Embassy.

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For more information, including regular progress reports, visit:
http://usaid.gov/vietnam/environmental-remediation

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